



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,302	04/21/2004	Yuji Taki	118898	4810
25944	7590	09/08/2005		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER BONANTO, GEORGE P	
			ART UNIT	PAPER NUMBER
			2855	
DATE MAILED: 09/08/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/828,302

Applicant(s)

TAKI, YUJI

Examiner

George P. Bonanto

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 21 April 2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: the specification contains numerous grammatical errors, such as “an reporting portion” and “an report.” The errors occur in multiple paragraphs, for example paragraphs 5, 8, 9 and 14, inter alia.

The Brief Description of the Drawings section describes “Fig. 5.” There is, however, no Fig. 5 in the figures. The section should be amended to describe Figs. 5a and 5b.

Paragraph 67 refers to Fig. 8. There is, however, no Fig 8 in the figures. It appears that paragraph 67 should refer to Fig. 5a.

Paragraph 72 refers to Fig. 5. There is, however, no Fig. 5 in the figures. It appears that paragraph 72 should refer to Fig. 5a. Appropriate correction is required.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the puncture repair state detection device must be shown or the feature canceled from the claim. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure

Art Unit: 2855

must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 2, 3 and 19 are objected to because of the following informalities: the claims contain the phrase, "an report" or "an reporting." The word "an" should be deleted and the word "a" should be inserted in its place. Appropriate correction is required.

Claim 3 is objected to because of the following informalities: claim 3 contains the phrase, "capable of discriminatory reporting the different kinds of pieces of air pressure report information" contains a grammatical error. Appropriate correction is required.

Claims 11 and 16 are objected to because of the following informalities: claims 11 and 16 contain the claim element "the vehicle body," which lacks antecedent basis. Appropriate correction is required.

Claim 15 is objected to because of the following informalities: claim 15 contains the claim element "the standard state air pressure" which lacks antecedent basis. It appears as though claim 15 should depend from claim 11. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 18 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, claim 18 refers to a “puncture repair state” and a device that detects whether the tire is “under a puncture repair.” The only support for these elements is found in paragraph 45 of the specification. Paragraph 45, however, does not disclose what is meant by either phrase. Furthermore, it is not clear how one of ordinary skill in the art would achieve the goal of detecting a “puncture repair state” or that the tire is “under a puncture repair.”

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 16, 17 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,562,787 to Koch et al.

As to claim 1, Koch et al. disclose an air pressure state reporting apparatus comprising an air pressure state detection device that is provided on a wheel and that detects a state of air pressure of a tire of the wheel (pressure sensor 46; Fig. 2 and col. 4, lines 6-34) and a reporting device that generates report information indicative of an air pressure state based on the state of air pressure detected by the air pressure state detection device (microchip 20 and antenna 30; Fig. 2 and col. 7, line 40 to col. 8, line 60) and that reports the report information generated to outside a vehicle (col. 8, lines 53-60).

As to claim 2, Koch et al. further disclose that the reporting device includes a report information generating portion that generates the report information (col. 9, line 35 to col. 10, line 34) and a reporting portion that is operated in accordance with the report information generated by the report information generating portion (col. 9, lines 15-35) and wherein the reporting portion includes at least one of a light radiation device that radiates light to outside the vehicle, a sound generating device that generates a sound to outside the vehicle and a portable instrument that is separate from the vehicle (col. 9, lines 15-35).

As to claim 3, Koch et al. further discloses that the reporting device includes an air pressure state information generating portion that generates different kinds of pieces of air pressure state report information in accordance with different states of air pressure detected by the air pressure state detection device (col. 3, lines 40-60 and col. 9, lines 15-35) and a reporting portion capable of discriminatory reporting the different kinds of pieces of air pressure report

Art Unit: 2855

information generated by the air pressure state information generating portion (col. 9, lines 15-35).

As to claim 4, Koch et al. further disclose that the reporting device includes a vehicle-mounted device that is provided in the vehicle and is operated in accordance with operation of an operating member by a driver (col. 9, lines 15-16 and lines 60-68) and an air pressure state-corresponding vehicle-mounted device control portion that generates the report information and operates the vehicle-mounted device in accordance with the report information generated (col. 9 line 15 to col. 10 line 34).

As to claim 5, Koch et al. further disclose that the reporting device includes a movable reporting device that has a movable member that is visually recognizable from outside the vehicle, a driving portion that operates the movable member and a driving control portion that controls the driving portion (col. 9, lines 15-25).

As to claim 16, Koch et al. further disclose a wheel information transmitting portion that is provided on the wheel and that transmits wheel information that includes the state of air pressure detected by the air pressure state detection device (antenna 30; Fig. 2) and a receiving portion that is provided on a vehicle body and that receives the wheel information (col. 9, lines 15-20) wherein the reporting device includes a received information-based air pressure state obtaining portion that obtains the state of air pressure based on the wheel information received by the receiving portion (col. 9, lines 15-35).

As to claim 17, Koch et al. further disclose that the reporting device is provided on the wheel (col. 4, lines 10-12).

As to claim 22, Koch et al. disclose an air pressure reporting method comprising a first step of detecting a state of air pressure of a tire of a wheel (col. 3, lines 43-45) and a second step of generating report information indicative of an air pressure state based on the state of air pressure detected (col. 3 lines 45-49) and reporting the report information generated to outside a vehicle (col. 3, lines 49-50 and col. 9, lines 15-35).

Claims 1-7, 9, 10, 14-7, 19 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat No. 6,612,165 to Juzswik et al.

As to claim 1, Juzswik et al. disclose an air pressure state reporting apparatus comprising an air pressure state detection device that is provided on a wheel and that detects a state of air pressure of a tire of the wheel (pressure sensor 20, Fig. 1) and a reporting device that generates report information indicative of an air pressure state based on the state of air pressure detected by the air pressure state detection device and that reports the report information generated to outside a vehicle (controllers 26 and 36, antenna 34 and first and second indicators 48 and 50; Fig. 1).

As to claim 2, Juzswik et al. further discloses that the reporting device includes a report information generating portion that generates the report information (pressure sensor 20; Fig. 1) and a reporting portion that is operated in accordance with the report information generated by the report information generating portion (controllers 26 and 36 and second indicator 50; Fig. 1) and wherein the reporting portion includes at least one of a light radiating device that radiates a light to outside the vehicle and a sound generating device that generates a sound to outside the vehicle (col. 4 lines 50-57).

As to claim 3, Juzswik et al. further disclose that the reporting device includes an air pressure state information generation generating portion that generates different kinds of pieces

Art Unit: 2855

of air pressure state report information in accordance with different states of air pressure detected by the air pressure state detection device (pressure sensor 20 and controller 26; Fig. 1) and a reporting portion capable of discriminatory reporting of the different kinds of pieces of air pressure report information generated by the air pressure state information generating portion (controller 36 and display 48; Fig. 1).\

As to claim 4, Juzswik et al. further disclose that the reporting device includes a vehicle-mounted device that is provided in the vehicle and is operated in accordance with the operation of an operating member by a driver (vehicle based unit 16 and, for example, mode switch 52; Fig. 1) and an air pressure state-corresponding vehicle-mounted device control portion that generates the report information and operates the vehicle-mounted device in accordance with the report information generated (controller 36; Fig. 1).

As to claim 5, Juzswik et al. further disclose that the reporting device includes a moveable reporting device that has a movable member that is visually recognizable from outside the vehicle (second indicator 50; Fig. 1 being an audio indicator and a visual indicator; col. 4, lines 50-57) a driving portion that operates the movable member (inherent in audio indicator, to make noise it has to have a movable member and a driving portion) and a driving control portion that controls the driving portion (controller 36; Fig. 1).

As to claim 6, Juzswik et al. further disclose that the reporting device includes an air pressure supply state detection device that detects whether air pressure is being supplied to the tire (steps 322-334 illustrate pressure sensor 20 and the controller 26 detecting that the tire is being supplied with air pressure; Fig. 3 and col. 9, lines 8-40) wherein the reporting device

Art Unit: 2855

reports the report information while it is detected by the air pressure supply detection device that air pressure is being supplied (step 328; Fig. 3 and col. 9, lines 20-25).

As to claim 7, Juzswik et al. further disclose that the air pressure supply state detection device includes an increase gradient-corresponding air pressure supply state detecting portion that determines that air pressure is being supplied if the gradient of increase in the air pressure is greater than a set gradient (steps 318-326 illustrate pressure sensor 20 and controller 26 detecting that air pressure is being supplied if the air pressure changes more than x over the delay; Fig. 3 and col. 9, lines 5-40).

As to claim 9, Juzswik et al. further disclose that the air pressure supply state detection device includes a during-stop air pressure supply state detecting portion that determines that air pressure is being supplied if a gradient of increase in the air pressure is greater than a set gradient in a case where a rotation speed of the wheel that includes the tire is at most a set speed (col. 10, lines 14-19).

As to claim 10, Juzswik et al. further disclose that the reporting device includes an air pressure supply state reporting portion that generates air pressure supply state report information based on the state of air pressure detected by the air pressure state detection device and reports that air pressure supply state report information if it is detected by the air pressure supply state detection device that air pressure is being supplied (air supply is detected based on air pressure sensed by pressure sensor 20 and report indicating air is being supplied is reported to the controller to initiate transmitting at step 328; Fig. 3 and col. 9, lines 17-21).

As to claim 14, Juzswik et al. further disclose that the reporting device includes an inside reporting portion that reports the report information to inside the vehicle during a normal

Art Unit: 2855

condition (col. 5 lines 53-65) and an outside reporting portion that reports the report information to outside of the vehicle if it is detected by the air pressure supply state detection device that air pressure is being supplied (col. 6 lines 11-40).

As to claim 15, Juzswik et al. further disclose that if the standard state air pressure reaches a target value, the outside reporting portion reports so, and if the standard state air pressure is lower than a reference value the inside reporting portion reports so (no indication on single indicator perceived from outside if monitored pressure value is within predefined range, and alert condition indicated on single indicator if monitored pressure is outside of the predefined range; col. 4, lines 58-64 and col. 5, lines 53-65).

As to claim 16, Juzswik et al. further disclose a wheel information transmitting portion that is provided on the wheel and that transmits wheel information that includes the state of air pressure detected by the air pressure state detection device (antenna 34; Fig. 1) and a receiving portion that is provided on a vehicle body and that receives the wheel information (antenna 46; Fig. 1) wherein the reporting device includes a received information-based air pressure state obtaining portion that obtains the state of air pressure based on the wheel information received by the receiving portion (controller 36; Fig. 1).

As to claim 17, Juzswik et al. further disclose that the reporting device is provided on the wheel (col. 3, lines 19-23).

As to claim 19, Juzswik et al. disclose an air pressure state detection device that is provided on a wheel and that detects a state of air pressure of a tire of the wheel (pressure sensor 20; Fig. 1) an air supply state detection device that detects whether air pressure is being supplied to the tire (steps 322-334 illustrate pressure sensor 20 and the controller 26 detecting that the tire

Art Unit: 2855

is being supplied with air pressure; Fig. 3 and col. 9, lines 8-40) and a reporting device that generates report information indicative of an air pressure supply state based on the state of air pressure detected by the air pressure state detection device and reports the air pressure supply state report information generated, if it is detected by the air pressure supply state detection device that air pressure is being supplied (air supply is detected based on air pressure sensed by pressure sensor 20 and report indicating air is being supplied is reported to the controller to initiate transmitting at step 328; Fig. 3 and col. 9, lines 17-21).

As to claim 22, Juzswik et al. disclose an air pressure reporting method comprising a first step of detecting a state of air pressure of a tire of a wheel (col. 5, lines 53-65) and a second step of generating report information indicative of an air pressure state based on the state of an air pressure detected, and reporting the report information generated to outside a vehicle (single indicator, perceived outside the vehicle, activated when monitored pressure value is outside predefined pressure range; col. 4, lines 58-64 and col. 5, lines 53-65).

Claim 21 is rejected under 35 U.S.C. 102(e) as being anticipated by Published U.S. Application No. 2004/0017289 by Brown, JR.

Brown, JR. discloses an air pressure state reporting apparatus comprising an air pressure detection device that is provided on a wheel and that detects a value of air pressure of a tire of the wheel (paragraph 83) and a standard state air pressure value obtaining portion that obtains a standard state air pressure value based on a detected air pressure value detected by the air pressure detection device and at least one of a load applied to the wheel and a temperature of the tire (paragraphs 83 and 84).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 11, 13, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,612,165 to Juzswik et al, as applied to claim 1 and 6 above, in view of Published U.S. Application No. 2004/0017289 by Brown, JR.

As to claim 8, Juzswik et al. fail to disclose that the reporting device includes an abnormality reporting portion that reports that a gradient of increase in the air pressure is at most an abnormality detection-purpose set gradient if the gradient of increase in the air pressure is at most the abnormality detection-purpose set gradient in a case where it is detected by the air pressure supply state detection device that air pressure is being supplied.

Brown, JR. discloses an abnormality reporting portion that reports that a gradient of change in the air pressure is at most an abnormality detection-purpose set gradient if the gradient of change in the air pressure is at most the abnormality detection-purpose set gradient.

It would have been obvious to one of ordinary skill in the art to modify the air pressure state reporting apparatus of Juzswik et al. by adding the abnormality reporting portion of Brown, JR. in order to provide advance warning to the driver so as to enable preventative action (Brown, JR.; paragraph 12).

As to claim 11, Juzswik et al. disclose a tire temperature-related information obtainment device that is provided on at least one of the wheel and the vehicle body (other sensor 22 may be

Art Unit: 2855

a temperature sensor; Fig. 1 and col. 3, lines 26-27) and that obtains tire temperature-related information that is information related to a temperature of the tire (col. 3, lines 26-27) and a set pressure attainment reporting portion that reports that the air pressure of the tire obtained by the air pressure obtaining portion is at least a set pressure if the air pressure of the tire is at least a set pressure (col. 5, lines 53-65). Juzswik et al. fail, however, to disclose that the reporting device includes a standard state air pressure obtaining portion that obtains the air pressure of the tire in a standard state based on the tire temperature-related information obtained by the tire temperature-related information obtainment device and the state of air pressure detected by the air pressure state detection device, and a set pressure attainment information reporting portion that reports that the air pressure of the tire in the standard state obtained by the standard state air pressure obtaining is at least a set pressure if the air pressure of the tire in the standard state obtained by the standard state air pressure obtaining portion is at least the set pressure.

Brown, JR. discloses a tire temperature-related information obtainment device that is provided on at least one of the wheel and the vehicle body and that obtains tire temperature-related information that is information related to a temperature of the tire (Figs. 8a and 8b and paragraph 83) wherein the reporting device includes a standard state air pressure obtaining portion that obtains the air pressure of the tire in a standard state based on the tire temperature-related information obtained by the tire temperature-related information obtainment device and the state of air pressure detected by the air pressure state detection device (Figs. 8a and 8b and paragraph 83) and a set pressure attainment information reporting portion that reports that the air pressure of the tire in the standard state obtained by the standard state air pressure obtaining portion is at least a set pressure if the air pressure of the tire in the standard state obtained by the

Art Unit: 2855

standard state air pressure obtaining portion is at least the set pressure (Figs. 8a and 8b and paragraph 84).

It would have been obvious to one of ordinary skill in the art to modify the air pressure state reporting apparatus of Juzswik et al. by including the standard state air pressure obtaining portion of Brown, JR. in order to improve the accuracy of the information communicated to a driver regarding tire pressure (Brown, JR.; paragraph 5).

As to claim 13, Brown, JR. further discloses that the standard state air pressure obtaining portion includes a high temperature-time obtaining portion that obtains the standard state air pressure if the tire temperature indicated by the tire temperature-related information obtained by the tire temperature-related information obtainment device is at least a set temperature (paragraph 83).

As to claim 20, Juzswik et al. disclose an air pressure state reporting apparatus comprising an air pressure detection device that is provided on a wheel that detects a value of air pressure of a tire of the wheel (pressure sensor 20; Fig. 1) and an air pressure supply state detection device that detects whether air pressure is being supplied to the tire (steps 322-334 illustrate pressure sensor 20 and the controller 26 detecting that the tire is being supplied with air pressure; Fig. 3 and col. 9, lines 8-40). Juzswik et al. fail, however, to disclose an abnormality detection device that determines that there is an abnormality if a state where a gradient of change in the value of air pressure is at most a set gradient continues for at least a set time provided that it is detected by the air pressure supply state detection device that air pressure is being supplied, or an abnormality reporting device that reports that there is an abnormality if the abnormality detection device detects so.

Art Unit: 2855

Brown, JR. discloses an abnormality detection device that determines that there is an abnormality if a state where a gradient of change in the value of air pressure is at most a set gradient continues for at least a set time (paragraph 84) and an abnormality reporting device that reports that there is an abnormality if the abnormality detection device detects so (Figs. 8a and 8b).

It would have been obvious to one of ordinary skill in the art to modify the air pressure state reporting apparatus of Juzswik et al. by including the abnormality detection device of Brown, JR. in order to provide advance warning to the driver so as to enable preventative action (Brown, JR.; paragraph 12).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,612,165 to Juzswik et al. in view of Published U.S. Application No. 2004/0017289 by Brown, JR., as applied to claim 11 above, in further view of Published U.S. Application No. 2005/0162263 by Fennel et al.

Juzswik et al. and Brown, JR. fail to disclose that the tire temperature-related information obtainment device includes a rotation state detection device that detects a state of rotation of the wheel, and the reporting device includes a rotation state-corresponding temperature estimating portion that estimates a temperature of the tire based on the state of rotation detected by the rotation state detection device.

Fennel et al. disclose a tire temperature-related information obtainment device that includes a rotation state detection device that detects a state of rotation of the wheel, and a reporting device that includes a rotation state-corresponding temperature estimating portion that

Art Unit: 2855

estimates a temperature of the tire based on the state of rotation detected by the rotation state detection device (paragraph 19).

It would have been obvious to one of ordinary skill in the art to modify the air pressure state reporting apparatus of Juzswik et al, including the standard state air pressure obtaining portion of Brown, JR., by including the rotation state detection device of Fennel et al. and using the estimated temperature based on the rotation state in the calculation of the standard state air pressure in order to eliminate any errors in the temperature reading by direct measurement due to excess heat from the road surface or brake systems (Fennel et al.; abstract).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Pat. Nos. 6,055,925; 6,741,169; 6,750,762; 6,771,169; 6,784,794 and 6,868,718 and Published U.S. Application No. 2003/0214395 disclose various tire pressure monitoring and alarm systems and tire pressure gauges.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George P. Bonanto whose telephone number is (571) 272-2182. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David M. Gray can be reached on (571) 272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2855

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'David Gray', with a large, stylized loop at the end.

David Gray
Primary Examiner

GPB